What is claimed is:

1. A process for etching an oxide layer, comprising the steps of:

flowing into a plasma reaction chamber a gas mixture comprising a first amount of a fluorine-containing gas and a second amount of xenon, wherein a ratio of said second amount to said first amount is at least one;

applying a first level of RF power to a pedestal electrode supporting a substrate containing said oxide and non-oxide layer; and

exciting said gas mixture into a plasma to thereby selectively etch said oxide layer to said non-oxide layer.

2. The process of Claim 1, wherein said oxide layer overlies a non-oxide layer and said ratio is at least ten, to thereby etch said oxide layer selectively to said non-oxide layer.

3. The process of Claim 1, wherein said non-oxide comprises a nitride formed into a corner feature.

4. The process of Claim 3, wherein said ratio of said second amount to said first amount is at least twenty.

5. The process of Claim 1, wherein said fluorine-containing gas comprises a fluorocarbon.

6. The process of Claim 5, wherein said fluorocarbon consists of at least four carbon atoms, at least an equal number of fluorine atoms, and no more than two hydrogen atoms.

7. The process of Claim 5, wherein said fluorocarbon is hydrogen free.

8. The process of Claim 6, wherein said fluorocarbon is selected from the group consisting of hexafluorobutadiene, hexafluorocyclobutene, hexafluorobenzene,

octafluorocyclobutane, and octofluoropentadiene.

9. The process of Claim 8, wherein said fluorocarbon comprises hexafluorobutadiene.

10. The process of Claim 8, wherein the process conditions are chosen to produce a 25% process window in the amount of said fluorocarbon.

11. The process of Claim 10, wherein said fluorocarbon comprises hexafluorobutadiene.

12. The process of Claim 1, wherein said exciting step includes applying an oscillatory electrical signal to excite said gas mixture into a plasma in a region remote from said pedestal electrode.

13. The process of Claim 12, wherein said oscillatory electrical signal is coupled to an inductive coil adjacent to said chamber.

14. The process of Claim 12, wherein said biasing steps applies at least 1600W to said pedestal electrode normalized to a 200mm wafer.

15. The process of Claim 1, wherein said oxide layer is preformed with holes extending downwardly from a top surface thereof and corners of said oxide layer at tops of said holes are exposed during the process.

16. The process of Claim 1, wherein processing conditions are chosen to produce a processing window of 25% in the amount of the fluorine-containing gas.

17. A process of etching an oxide layer, comprising the steps of:

flowing into a plasma reaction chamber a gas mixture comprising a first amount of hexafluorobutadiene and a second amount of xenon;

exciting said gas mixture into a plasma in a region of said chamber remote from a wafer supported on a pedestal electrode; and

applying RF power to said pedestal electrode to create a DC bias.

18. The process of Claim 17, wherein said RF power is applied in an amount of 1500W normalized to a 200nm wafer.

19. The process of Claim 17, wherein said second amount of xenon is at least equal to said first amount of hexafluorobutadiene.

20. The process of Claim 19, wherein said second amount of xenon is at least ten times said first amount of hexafluorobutadiene.